

Mineral Industry Surveys

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NICKEL IN AUGUST 2006

Reported domestic nickel consumption in August, on a daily average basis, was 7% greater than the revised total for July, according to the U.S. Geological Survey. Daily average use of nickel metal and ferronickel for stainless and heat resisting steels was 8% greater than the corresponding average for July. Use of nickel metal to make superalloys (such as INCONEL 718 and WASPALOY) increased by 15% from July levels, on a daily average basis. The increase in the superalloy category was accompanied by a 9% increase in the "Other nickel & nickel alloys" category (such as INCONEL 600 and Nickel 200). Sales to plating companies averaged 26.8 metric tons per day (t/d), about 10% more than the revised July figure of 24.3 t/d. The United States imported 94,900 metric tons (t) of primary nickel during the first 7 months of 2006, about 9% more than the 86,700 t for the corresponding period of 2005. Trade data for August will appear in a subsequent report. Percentages reported in this paragraph are based on data concealed to avoid revealing individual company proprietary data.

On August 31, stocks in London Metal Exchange warehouses worldwide totaled 5,358 t, up 29% from the 4,158 t of July 31. The figure for July 31 was the lowest end-of-month figure reported in at least 12 years.

Creation of Xstrata Nickel

On May 17, 2006, Xstrata plc of Zug, Switzerland, announced its intention to acquire Falconbridge Limited, the second leading nickel producer in Canada. Xstrata owned 19.8% of Falconbridge's outstanding common stock at the time and offered to buy the remaining shares for C\$52.50 cash per share. The Swiss mining group subsequently raised its offer to C\$63.25 per share. On August 15, Xstrata announced that it had increased its holdings to 67.8% and would take control of the Canadian company. Falconbridge, renamed Xstrata Nickel, is now a commodity business unit within the Swiss group but remains headquartered in Toronto (Falconbridge Limited, 2006; Xstrata plc, 2006).

References Cited

- Falconbridge Limited, 2006, Xstrata acquires 67.8% of Falconbridge and extends offer to 25 August 2006: Toronto, Ontario, Canada, Falconbridge Limited press release, August 15, 2 p.
- Xstrata plc, 2006, Xstrata plc announces C\$52.50 per share cash offer for Falconbridge Limited: Toronto, Ontario, Canada, and Zug, Switzerland, Xstrata plc press release, May 17, 11 p.

TABLE 1
CONSUMPTION OF NICKEL (EXCLUSIVE OF SCRAP), BY FORM AND USE¹

(Metric tons, nickel content)

Period	Cathodes, pellets, briquets, and powder		Oxide-sinter, salts, and other forms	Total	Total year to date
		Ferronickel			
2005:					
August	5,060	437	42	5,540	45,000
September	5,190	658	44	5,900	50,800
October	5,230	708	44	5,980	56,800
November	5,220	585	57	5,860	62,700
December	4,750	619	52	5,420	68,100
January-December	61,100	6,450	544	68,100	XX
2006:					
January	6,760	831	71	7,660	7,660
February	6,390	842	66	7,300	15,000
March	6,400	776	68	7,250	22,200
April	6,530	788	59	7,380	29,600
May	6,520 ^r	850	59	7,430 ^r	37,000
June	6,570	758	59	7,390 ^r	44,400
July	6,150	677	52	6,880	51,300
August:					
Steel:					
Stainless and heat resisting	2,660	788	W	3,450	26,700
Alloy (excludes stainless)	218	--	--	218	2,760
Superalloys	1,180	--	W	1,180	9,080
Copper-nickel alloys	W	--	--	W	W
Electric, magnetic, and expansion alloys	13	--	--	13	111
Other nickel & nickel alloys	W	--	W	W	W
Cast iron	W	--	--	W	W
Electroplating (sales to platers)	831	--	--	831	6,680
Chemical and chemical uses	W	--	W	W	W
Other uses	1,610	--	59	1,670	13,300
Total reported	6,510 ²	788	59	7,360	58,600
Total all companies (calc) ³	XX	XX	XX	14,500	115,000
2006: January-August	51,800	6,310	493	58,600	XX
2005: January-August	40,700	3,880	348	45,000	XX

^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Other uses" category. XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Of consumption, 4,330 metric tons were consumed as cathodes and pellets, the remainder as briquets and powder.

³Figures represent calculated apparent consumption; based on the revised proportion of reported primary consumption (50.94%) to apparent primary consumption for 2004.

TABLE 2
ENDING STOCKS OF NICKEL (EXCLUSIVE OF SCRAP) HELD BY CONSUMERS,
BY FORM AND USE^{1,2}

(Metric tons, nickel content)

Period	Cathodes, pellets, briquets, and powder		Ferronickel	Oxide-sinter, salts, and other forms	Total
2005:					
August	1,680		276	139	2,100
September	1,680		273	153	2,110
October	1,660		279	147	2,090
November	1,720		307	147	2,170
December	2,050		300	146	2,500
2006:					
January	1,830		300	153	2,280
February	1,960		354	154	2,470
March	1,880		409	154	2,440
April	2,100		332	170	2,610
May	2,490		292	154	2,940
June	2,140		307	145	2,600
July	1,970		321	164	2,450
August:					
Steel (stainless, heat resisting and alloy)	692		426	(3)	1,120
Nonferrous alloys ⁴	1,100		W	(3)	1,100
Foundry (cast irons)	(3)		W	--	(3)
Chemical (catalysts, ceramics, plating salt, etc.) and unspecified uses	131		W	179	310
Total	1,920		426	179	2,530

W Withheld to avoid disclosing company proprietary data. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Stocks held by companies that consume nickel in more than one end-use category are credited to the major category. Stocks are subject to revisions owing to inventory adjustments.

³Included in the "Chemical and unspecified uses" category.

⁴Includes superalloys, nickel-copper and copper-nickel alloys, permanent magnet alloys, and other nickel alloys

TABLE 3
CONSUMPTION AND ENDING STOCKS OF PURCHASED SECONDARY NICKEL, BY USE¹

(Metric tons, nickel content)

Period	Consumption			Stocks		
	Ferrous scrap ²	Nonferrous scrap ³	Total scrap	Ferrous scrap ²	Nonferrous scrap ³	Total scrap
2005:						
August	4,360	748	5,110	2,630	113	2,740
September	4,490	709	5,200	2,800	99	2,900
October	5,000	638	5,640	3,010	110	3,120
November	5,520	611	6,130	2,630	98	2,730
December	4,530	593	5,130	2,470	89	2,560
January-December	56,200	8,530	64,700	XX	XX	XX
2006:						
January	3,710	710	4,420	2,600	54 ^r	2,660 ^r
February	4,130	653	4,790	2,850	45 ^r	2,900 ^r
March	4,290	800	5,090	2,930	44 ^r	2,980 ^r
April	5,250	699	5,950	2,660	49 ^r	2,710 ^r
May	4,340	651	4,990	2,760	54 ^r	2,810 ^r
June	3,840	845	4,680	3,090	44	3,130
July	4,450	666	5,110	3,110	57	3,170
August	NA	712	NA	NA	50	NA
Total	30,000	5,740	35,000	XX	XX	XX

^rRevised. NA Not available. XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Nickel content is calculated from an average nickel content and the reported gross weight of scrap.

³Combined consumption and stocks of aluminum-base, copper-base, and nickel-base scrap.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF NICKEL, BY COUNTRY¹

(Metric tons, nickel content)²

Period and country of origin	Cathodes, pellets, and briquets	Powder and flakes	Ferrous nickel	Metallurgical-grade oxide	Waste and scrap	Stainless steel scrap	Chemicals	Total ³	Total year to date ⁴	Wrought nickel
2005:										
July	9,050	543	1,700	--	633	624	177	12,700	96,500	89
August	10,500	772	1,370	--	447	402	295	13,800	110,000	116
September	9,410	500	1,890	--	645	443	294	13,200	123,000	94
October	8,410	794	728	17	719	505	286	11,500	135,000	63
November	9,690	714	1,240	107	689	581	277	13,300	148,000	94
December	7,310	423	877	110	608	731	291	10,400	159,000	128
January-December	110,000	8,120	19,300	1,540	7,170	8,340	3,620	159,000	XX	1,060
2006:										
January	11,800	971	864	80	651	717	307	15,400	15,400	76
February	9,740	575	1,310	177	379	771	435	13,400	28,800	74
March	12,300	695	1,530	67	567	817	369	16,400	45,200	124
April	12,900	870	1,300	121	621	1,100	287	17,200	62,400	83
May	10,400	1,170	1,090	107	561	1,280	279	14,900	77,300	99
June	10,900	648	1,050	67	713	1,500	326	15,200	92,500	174
July:										
Australia	1,510	40	--	--	16	--	--	1,560	8,940	--
Brazil	60	--	--	--	17	--	--	77	962	--
Canada	2,400	190	--	98	247	1,140	22	4,090	41,900	2
China	57	--	--	--	5	--	17	79	758	(5)
Colombia	--	--	713	--	20	--	--	733	1,900	--
Dominican Republic	--	--	737	--	--	(5)	--	737	5,630	--
Finland	393	17	--	--	--	--	35	445	4,910	--
France	86	--	--	--	125	--	17	228	1,770	14
Germany	--	2	--	--	27	--	32	61	609	44
Japan	--	1	25	--	9	(5)	30	65	528	3
Mexico	--	--	--	--	15	263	2	280	1,800	--
New Caledonia	--	--	50	--	--	--	--	50	1,050	--
Norway	1,430	--	--	--	--	--	--	1,430	10,500	--
Russia	3,260	180	--	--	--	--	--	3,440	19,900	--
South Africa	19	60	--	--	--	--	--	79	495	--
Sweden	--	1	--	--	--	--	--	1	18	--
United Kingdom	5	26	--	--	164	--	5	200	1,820	31
Zimbabwe	137	--	--	--	--	--	--	137	825	--
Other	108	285 ⁶	--	--	86	140	55	674	2,520	11
Total	9,460	802	1,530	98	731	1,540	215	14,400	107,000	105
2006: January-July	77,600	5,730	8,650	719	4,220	7,730	2,220	107,000	XX	734
2005: January-July	65,200	4,910	13,200	1,310	4,060	5,680	2,180	96,500	XX	563

XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²The nickel contents are assumed to be as follows: metallurgical-grade oxide (77%), waste and scrap (50%), and stainless steel scrap (7.5%). The chemicals category includes chlorides (25%); sulfates (22%); other salts (22%); supported catalysts (22%); and oxide, sesquioxide, and hydroxide (65%).

³Excludes wrought nickel.

⁴May include revisions for prior months.

⁵Less than ½ unit.

⁶All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 5
U.S. EXPORTS OF NICKEL, BY COUNTRY¹

(Metric tons, nickel content)²

Period and country of destination	Cathodes, pellets, and briquets	Powder and flakes	Ferro-nickel	Metal-lurgical-grade oxide	Waste and scrap	Stainless steel scrap	Chemicals	Total ³	Total year to date	Wrought nickel
2005:										
July	173	113	4	3	814	3,020	335	4,460	36,200	105
August	91	84	--	1	1,270	3,350	506	5,300	41,500	156
September	147	85	4	5	1,150	3,950	315	5,650	47,100	105
October	134	148	1	8	1,040	3,450	281	5,070	52,200	94
November	70	116	(4)	5	1,000	3,640	271	5,100	57,300	79
December	80	87	21	33	1,080	4,200	430	5,940	63,200	99
January-December	1,190	1,910	72	234	11,700	43,800	4,230	63,200	XX	1,340
2006:										
January	105	107	15	12	1,200	4,100	387	5,930	5,930	158
February	125	87	8	8	860	2,950	370	4,410	10,300	106
March	87	92	5	69	942	2,700	631	4,520	14,900	114
April	189	111	22	8	975 ^r	2,540 ^r	387 ^r	4,230 ^r	19,100	151
May	79	100	6	8	2,070	3,420	636	6,320	25,400	119
June	48	64	(4)	4	1,420	2,910	454	4,890	30,300	84
July:										
Australia	--	--	--	--	32	--	--	32	217	8
Belgium	--	1	--	2	23	9	(4)	35	473	--
Canada	(4)	9	--	--	811	213	160	1,190	7,780	6
China	--	1	--	--	--	1,250	14	1,270	9,430	3
Finland	--	--	--	--	--	448	--	448	3,790	--
Germany	--	13	--	--	25	9	9	56	353	4
India	--	(4)	--	--	--	34	1	35	875	2
Italy	--	(4)	--	--	--	--	--	(4)	1,000	1
Japan	--	8	--	--	1,110	53	31	1,200	3,490	11
Korea, Republic of	--	2	--	--	19	95	34	150	1,160	9
Mexico	37	3	--	--	--	1	8	49	658	7
Netherlands	--	(4)	--	--	9	47	4	60	555	(4)
South Africa	--	--	--	2	--	--	2	4	41	--
Sweden	--	1	--	--	23	--	1	25	204	--
Taiwan	--	16	--	--	19	789	5	829	3,250	--
United Kingdom	--	7	--	--	50	20	43	120	735	1
Other	2	12	3	--	--	123	46	186	1,970	49
Total	39	73	3	4	2,120	3,090	358	5,690	36,000	101
2006: January-July	672	633	61	113	9,600	21,700	3,220	36,000	XX	833
2005: January-July	668	1,390	45	181	6,200	25,300	2,420	36,200	XX	802

^rRevised. XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²The nickel contents are assumed to be as follows: metallurgical-grade oxide (77%), waste and scrap (50%), and stainless steel scrap (7.5%). The chemicals category includes chlorides (25%); sulfates (22%); other salts (22%); supported catalysts (22%); and oxide, sesquioxide, and hydroxide (65%).

³Excludes wrought nickel.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF NICKEL ALLOYS, BY COUNTRY¹

(Metric tons, gross weight)

Period and country of origin	Unwrought alloyed ingot	Bars, rods, and profiles	Wire	Plates and sheets	Foil	Tubes and pipes	Other alloyed articles	Total	Total year to date
2005:									
July	325	342	603	275	29	64	194	1,830	12,900
August	447	360	462	242	20	172	293	2,000	14,900
September	644	314	500	241	34	176	156	2,070	17,000
October	491	333	480	241	20	170	466	2,200	19,200
November	551	214	629	262	16	286	198	2,160	21,300
December	429	295	552	221	35	183	243	1,960	23,300
January-December	4,840	3,740	6,580	3,150	350	1,850	2,790	23,300	XX
2006:									
January	557	379	478	354	6	204	137	2,120	2,120
February	434	292	550	276	2	198	335	2,090	4,200
March	1,040	398	516	302	41	335	204	2,840	7,040
April	400	427	472	224	25	251	127	1,930	8,960
May	404	338	596	262	17	382	266	2,270	11,200
June	486	338	524	259	31	373	276	2,290	13,500
July:									
Australia	302	--	--	--	--	--	(2)	302	1,880
Belgium	--	--	(2)	1	--	--	1	2	125
Canada	--	19	2	--	--	14	19	54	688
China	--	(2)	(2)	(2)	--	--	97	97	702
France	--	7	98	25	--	33	2	165	1,400
Germany	146	144	141	205	10	74	3	723	4,940
Italy	--	337	23	--	--	1	12	373	1,250
Japan	--	(2)	4	--	--	300	1	305	894
Mexico	--	--	--	--	--	3	2	5	28
Netherlands	--	--	(2)	--	--	--	2	2	58
South Africa	39	--	--	--	--	--	--	39	253
Sweden	20	12	250	10	--	26	--	318	1,900
United Kingdom	64	51	4	(2)	--	5	3	127	1,220
Other	7	11	4	1	--	1	40	64	753
Total	578	581	526	242	10	457	182	2,580	16,100
2006: January-July	3,900	2,750	3,660	1,920	132	2,200	1,530	16,100	XX
2005: January-July	2,280	2,230	3,960	1,940	225	859	1,440	12,900	XX

XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 7
U.S. EXPORTS OF NICKEL ALLOYS, BY COUNTRY¹

(Metric tons, gross weight)

Period and country of destination	Unwrought alloyed ingot	Bars, rods, and profiles	Wire	Plates and sheets	Foil	Tubes and pipes	Other alloyed articles	Total	Total year to date
2005:									
July	1,130	1,060	170	409	5	211	293	3,280	21,900
August	1,010	1,310	114	301	9	285	360	3,390	25,300
September	565	1,250	92	398	26	237	286	2,850	28,100
October	731	1,100	125	393	27	417	401	3,190	31,300
November	628	1,430	104	335	5	419	288	3,210	34,500
December	762	1,510	65	282	3	243	267	3,130	37,700
January-December	10,400	15,000	1,440	4,200	119	3,000	3,580	37,700	XX
2006:									
January	472	1,460	67	358	35	645	251	3,280	3,280
February	411	1,650	91	321	19	277	336	3,110	6,390
March	1,040	1,800	63	473	33	281	360	4,050	10,400
April	955	1,730	71	371	30	245	246	3,650	14,100
May	687	1,610	95	394	19	236	326	3,360	17,400
June	550	1,650	75	426	21	226	286	3,230	20,700
July:									
Australia	--	2	1	2	--	1	1	7	52
Belgium	9	218	13	5	--	1	1	247	2,880
Canada	5	51	17	29	1	35	33	171	1,490
China	2	45	3	47	(2)	4	24	125	1,740
France	39	267	--	10	(2)	2	(2)	318	3,280
Germany	27	89	3	48	(2)	2	1	170	973
India	1	(2)	1	7	(2)	14	(2)	23	115
Ireland	--	--	(2)	1	--	6	(2)	7	31
Israel	26	50	1	(2)	1	(2)	(2)	78	894
Italy	36	9	2	64	(2)	2	1	114	617
Japan	45	36	2	25	3	5	1	117	2,360
Korea, Republic of	1	72	1	30	--	5	(2)	109	690
Mexico	1	80	10	4	(2)	64	160	319	2,320
Netherlands	--	2	(2)	17	--	2	3	24	123
Singapore	1	3	1	5	--	1	(2)	11	158
Spain	(2)	--	(2)	1	--	(2)	(2)	1	89
Sweden	(2)	18	--	5	9	--	6	38	314
Switzerland	83	1	(2)	5	--	2	(2)	91	324
Taiwan	(2)	14	(2)	7	--	4	1	26	283
United Kingdom	18	246	1	40	1	7	6	319	2,840
Other	23	24	5	39	1	37	23	152	1,570
Total	317	1,230	61	391	16	194	261	2,470	23,100
2006: January-July	4,430	11,100	523	2,740	173	2,100	2,070	23,100	XX
2005: January-July	6,660	8,380	938	2,490	50	1,400	1,980	21,900	XX

XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 8
NICKEL CONSUMPTION IN CAST AND WROUGHT PRODUCTS

	Percent	
	Wrought	Cast
August 2006:		
Stainless and heat resisting steels	98	2
Alloy steels	99	1
Superalloys	90	10
Copper-nickel alloys	97	3
Other nickel-base alloys	100	(1)

¹Less than ½ unit.

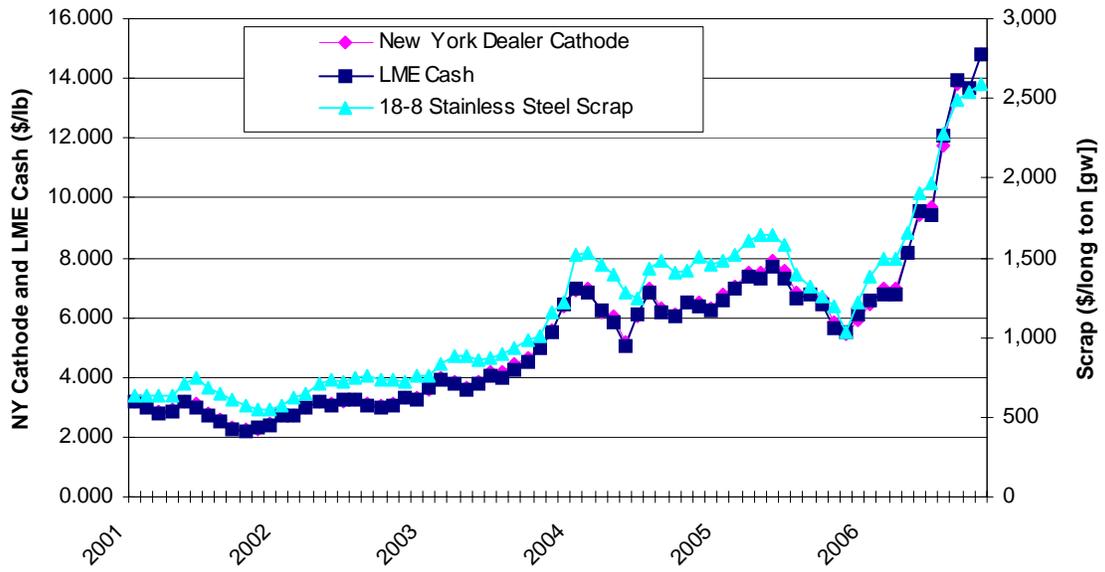
TABLE 9
NICKEL PRICES

Date	Platts Metals Week				American Metal Market
	Cathode NY Dealer \$/lb.	LME Cash mean ¹ \$/t	LME Cash mean ¹ \$/lb.	18/8 Stainless steel scrap free market \$/long ton (gw)	18/8 Stainless steel scrap Pittsburgh \$/long ton (gw)
2005:					
Average for month of:					
August	6.863	14,886.932	6.753	1,315	1,388
September	6.610	14,223.068 [†]	6.451	1,260	1,388
October	5.840	12,396.548	5.623	1,194	1,350
November	5.429	12,111.477	5.494	1,038	1,244
December	5.923	13,425.625	6.090	1,225	1,193
Yearly average	6.814	14,737.960	6.685	1,409	1,469
2006:					
Average for week ending:					
August 4	12.293-13.382	27,816.500	12.617	2,300-2,400	2,125-2,150
August 11	13.110-13.495	28,318.500	12.845	2,300-2,400	2,500-2,525
August 18	13.745-15.650	31,378.000	14.233	2,500-2,600	2,500-2,525
August 25	15.104-16.206	33,674.500	15.274	2,600-2,650	2,500-2,525
September 1	14.788-16.262	32,381.875	14.688	2,575-2,600	2,500-2,525
September 8	14.082-15.103	30,568.500	13.866	2,550-2,650	2,500-2,525
September 15	13.768-14.763	30,167.000	13.684	2,525-2,600	2,725-2,750
September 22	12.924-13.672	28,605.000	12.975	2,450-2,500	2,725-2,750
September 29	13.763-14.581	30,703.000	13.927	2,475-2,525	2,725-2,750
October 6	14.375-14.740	31,310.000	14.202	2,475-2,550	2,725-2,750
October 13	14.831-15.398	32,810.000	14.882	2,500-2,650	2,625-2,650
October 20	15.210-15.958	33,688.500	15.281	2,600-2,650	2,625-2,650
October 27	14.870-16.049	33,180.500	15.050	2,600-2,650	2,625-2,650
Average for month of:					
January	6.408	14,549.643	6.600	1,379	1,275
February	6.944	14,975.000	6.793	1,497	1,387
March	6.949	14,893.043	6.755	1,499	1,493
April	8.184	17,931.806	8.134	1,656	1,531
May	9.425	21,064.524	9.555	1,909	1,813
June	9.664	20,747.045	9.411	1,963	2,088
July	11.750	26,568.571	12.051	2,275	2,138
August	13.808	30,727.955	13.938	2,493	2,419
September	13.634	30,117.381	13.661	2,534	2,681
October	14.822	32,692.500	14.829	2,584	2,662

[†]Revised.

¹Mean of the cash buyer price and the cash seller and settlement price.

2001-2006 AVERAGE MONTHLY PRICES (Derived from Metals Week and American Metal Market quotations)



2001-2006 STOCKS

